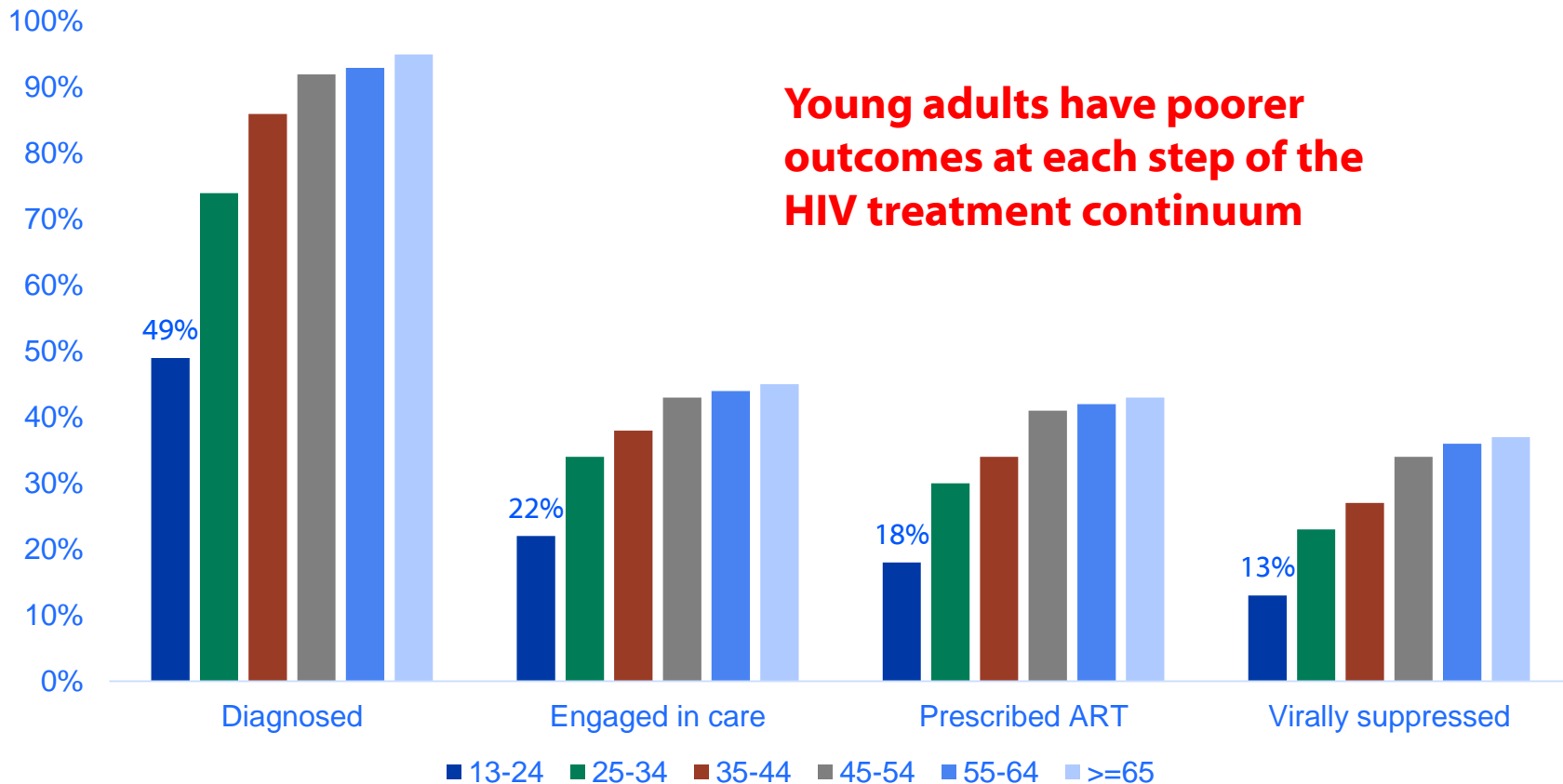


# **Clinical and Behavioral Characteristics of HIV-infected Young Adults in Care in the United States**

**Linda Beer, PhD, Christine L. Mattson, PhD,  
Joseph Prejean, PhD, and Luke Shouse, MD**

10<sup>th</sup> International Conference on  
HIV Treatment and Prevention Adherence  
June 30, 2015

# Persons diagnosed with HIV, engaged in medical care, prescribed ART, and virally suppressed among all HIV-infected, by age—United States, 2011\*



\*Adapted from Vital Signs: HIV diagnosis, care, and treatment among persons living with HIV--United States, 2011. Bradley H et al. MMWR Morb Mortal Wkly Rep. (2014)

# Background

- ❑ **Lack of suppression leads to increased**
  - Morbidity
  - Likelihood of HIV transmission when accompanied by transmission risk behaviors
  
- ❑ **Information on clinical characteristics, risk behaviors, and receipt of prevention services among young adults is needed to**
  - Inform interventions to improve health of HIV+ young adults
    - E.g., starting ART early for optimal health and decreased HIV transmission risk
  - Monitor progress towards goals of improving health and increasing healthy behaviors among HIV+ young adults

# Medical Monitoring Project (MMP) methods

## ❑ Ongoing HIV surveillance system

- Collection of interview and medical record data from HIV-infected adults receiving care in 16 U.S. states and Puerto Rico

## ❑ Annual cross-sectional complex sample survey

- Three-stage probability sampling to produce nationally representative data
  - States; HIV care-providing facilities; HIV-infected adults receiving care
- Data were weighted to adjust for unequal selection probabilities and non-response

## ❑ Data collected June 2009 - May 2012

- Participation rates
  - States 100%; facilities 76-83%, patients 49-51%

## **Analytic methods**

- ❑ **Describe characteristics that are useful for guiding prevention interventions and monitoring prevention progress among HIV-infected young adults in care**
  - Young adult defined as ages 18-24
  - N=359, 3% (CI 2-3) of all adults in care
- ❑ **Used Rao-Scott chi-square tests to compare 18-24 with 25+**
  - Sociodemographics
  - Depression and substance use
  - Sexual behaviors, risk reduction counseling, and STI screening
  - HIV care and viral status
- ❑ **Analyses accounted for clustering, unequal selection probabilities, and non-response**

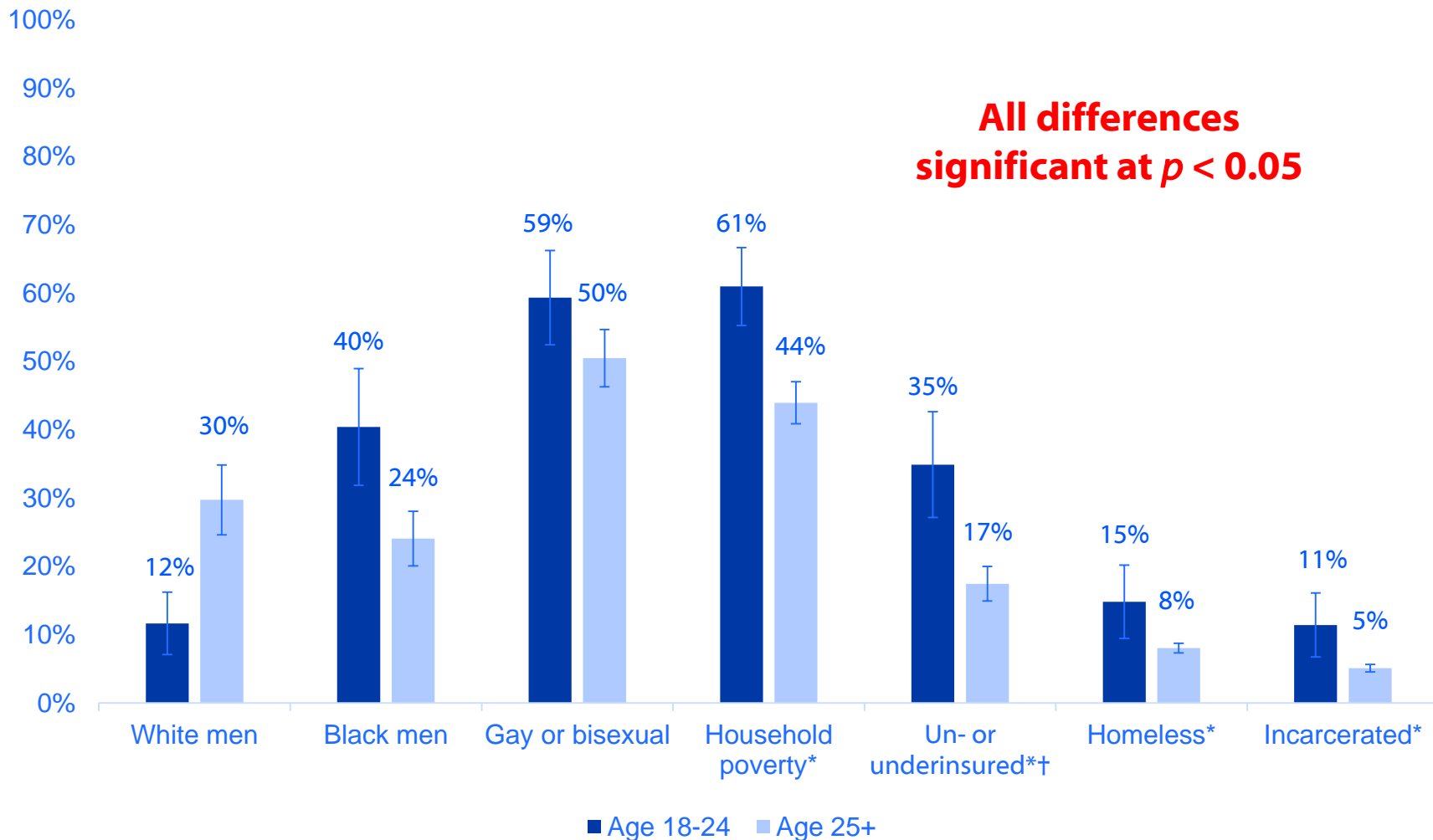
# RESULTS

## Characteristics of HIV-infected young adults in care

Characteristic	N	Weighted %
Gender		
Male	243	68
Female	108	28
Transgender	8	3*
Race/ethnicity		
Black	203	58
Hispanic	78	19
White	63	18
Other	15	5
Age at diagnosis		
<1	34	9
1-12	17	4
13+	307	87
HIV disease stage		
AIDS or nadir CD4+ 0-199	149	42
No AIDS and nadir CD4+ 200-499	174	47
No AIDS and nadir CD4+ >500	35	11
<b>Total</b>	<b>359</b>	<b>100</b>

Source: MMP cycles 2009-2011; \*Coefficient of variation is > 0.30, estimate may be unreliable.

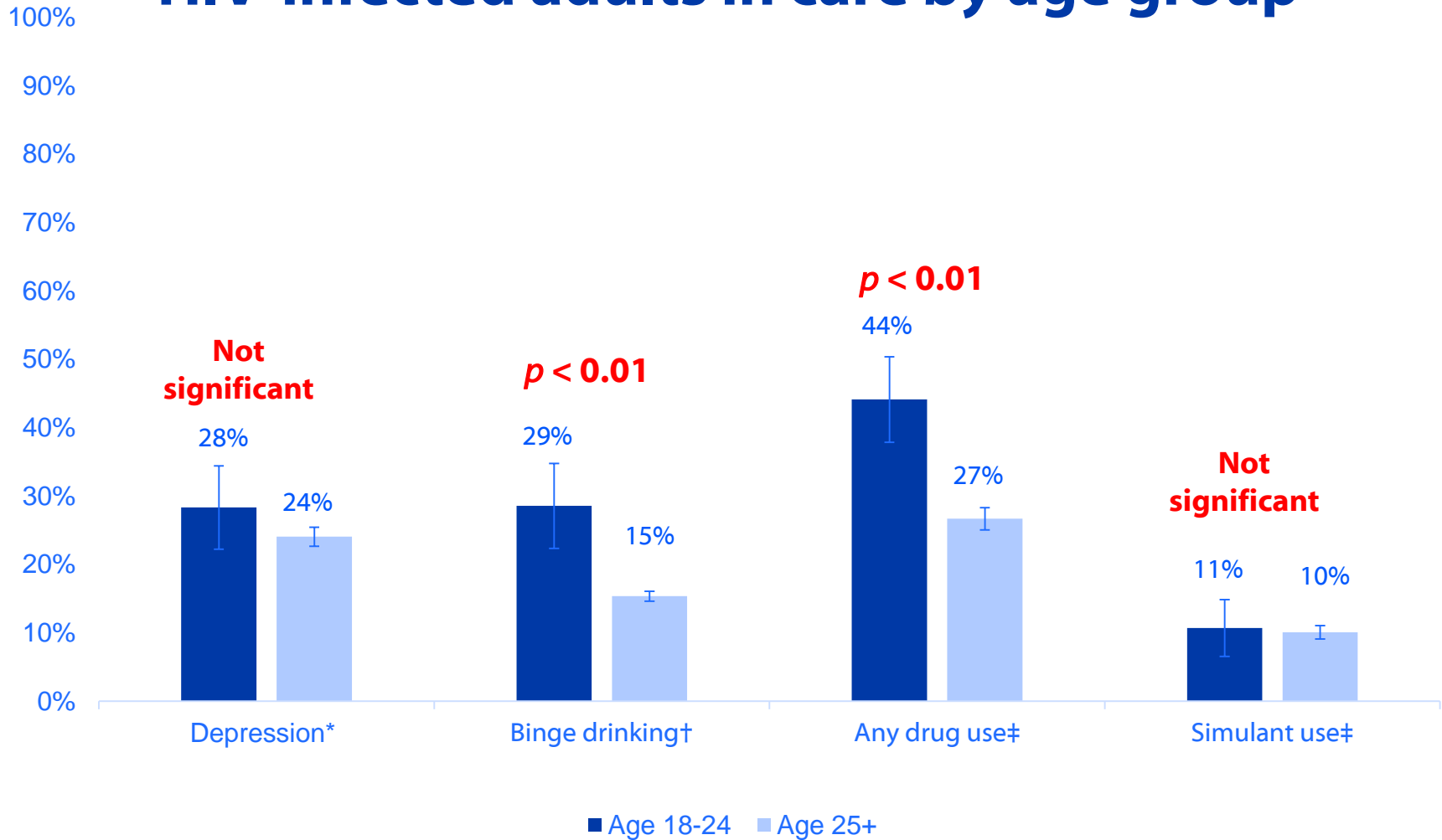
# Sociodemographic factors among HIV-infected adults in care by age group



Source: MMP cycles 2009-2011; \* Past 12 months; † No health insurance/coverage or only Ryan White coverage

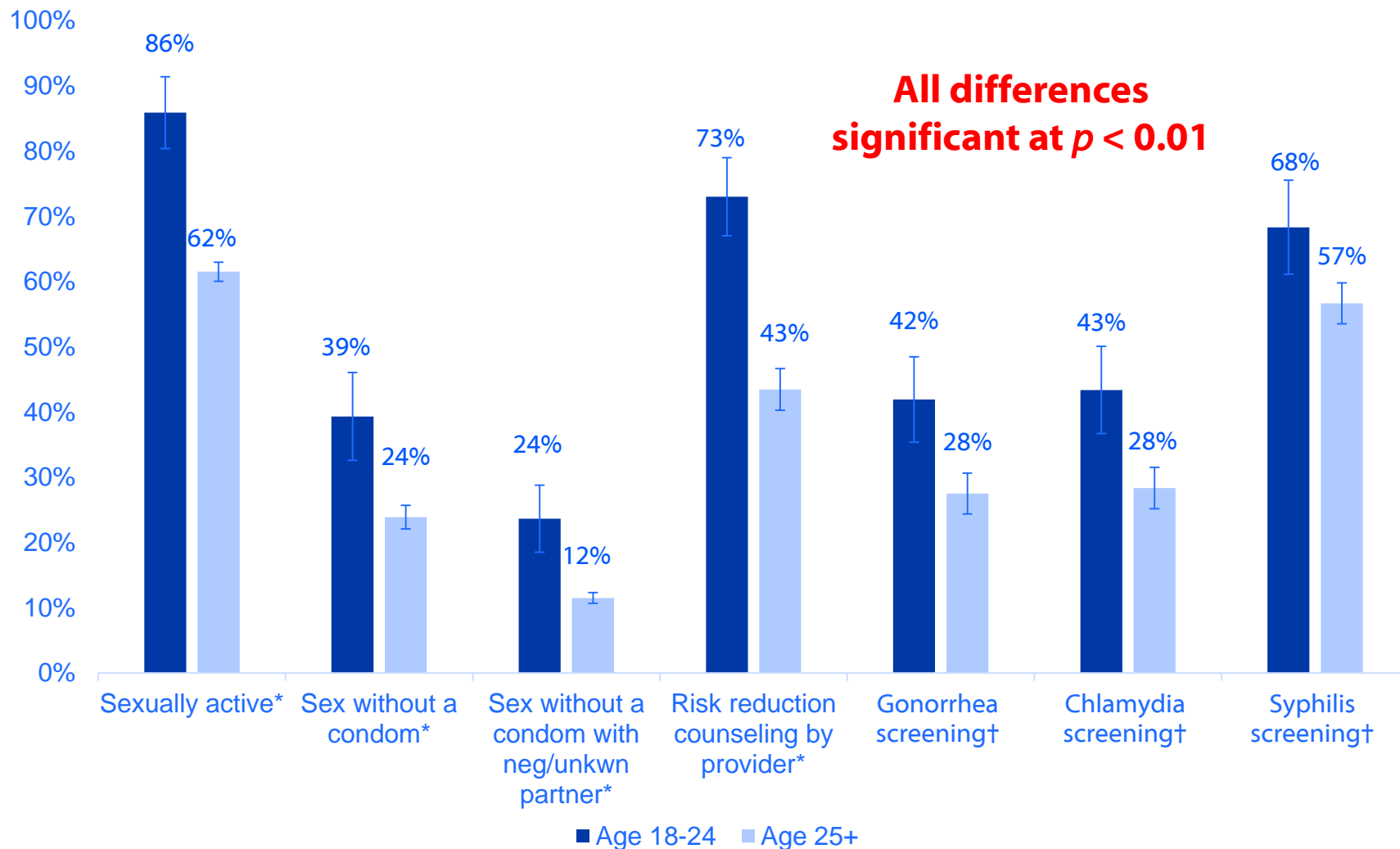


# Depression and substance use among HIV-infected adults in care by age group



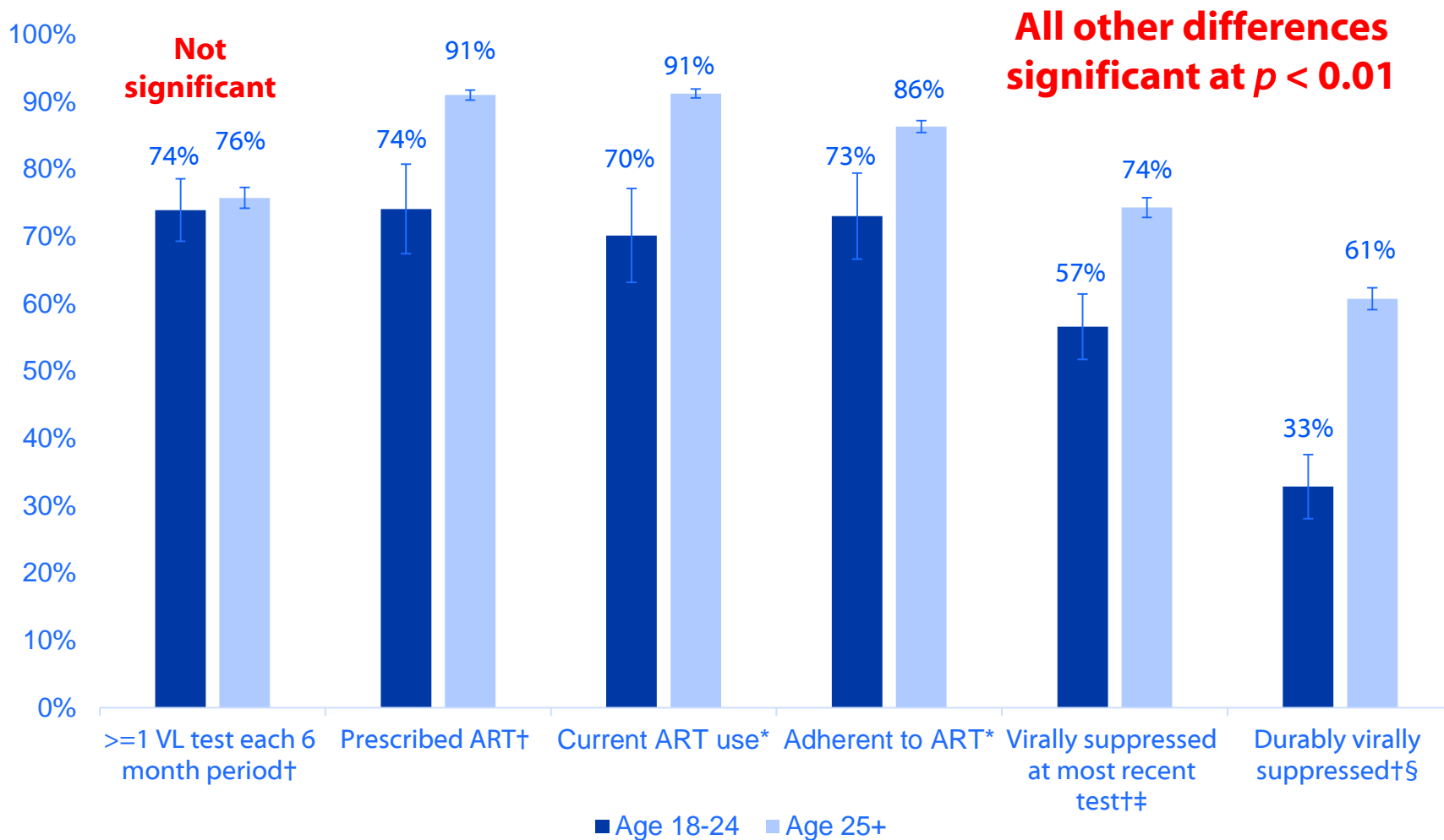
Source: MMP cycles 2009-2011; \* past 2 weeks, † past 30 days, ‡ past 12 months

# Sexual behavior, risk reduction counseling, and STI screening among HIV-infected adults in care by age



Source: MMP cycles 2009-2011; All variables measured in past 12 months \* reported in interview, † documented in medical record, among sexually active

# HIV care and viral status among HIV-infected adults in care by age group



Source: MMP cycles 2009-2011; all variables measured in past 12 months; \* reported in interview; † documented in medical record; ‡ most recent viral load test undetectable or  $\leq 200$  copies/ml; § all viral loads over the past 12 months undetectable or  $\leq 200$  copies/ml

# **DISCUSSION & CONCLUSIONS**

## Discussion

- ❑ **Although young adults more likely to receive provider-delivered risk reduction counseling and STI screening, also more likely to report sexual risk behaviors**
  - Providers may be appropriately focusing efforts on young adults, although STI screening levels in particular are suboptimal
  - Community or social media-based interventions may complement clinic-based risk reduction efforts

## Discussion

- ❑ **Despite similar levels of care utilization, young adults had lower levels of ART prescription and use, adherence, and viral suppression**
  - 66% young adults in care were not durably virally suppressed
  - Getting young adults engaged in care may not be enough to ensure they achieve optimal health

# Limitations

## ❑ **Population limited to those in care**

- A high proportion of HIV-infected young adults are either not diagnosed or diagnosed but not in care
  - However, analyses of the last steps in the care continuum needed to complement efforts to increase diagnosis and engagement

## ❑ **Confounders, mediators, and effect modifiers of the relationship between age and health outcomes not assessed**

- More work on the reasons for suboptimal health among young adults is warranted to guide development of programs and interventions

## ❑ **Potentially important differences between perinatally and behaviorally infected young adults not assessed**

## Conclusions

- ❑ **While addressing each step of the care continuum is important, HIV-infected young adults may face greater barriers to achieving optimal health, even among those in care**
- ❑ **Enhanced interventions to support ART use and adherence among young adults may be needed**



# Acknowledgments

- ❑ **MMP participants, facilities, project area staff, provider and community advisory board members**
- ❑ **Members of the Clinical Outcomes Team and Behavioral and Clinical Surveillance Branch at CDC**

# Thank you

**For more information please contact Centers for Disease Control and Prevention**

1600 Clifton Road NE, Atlanta, GA 30333

Telephone: 1-800-CDC-INFO (232-4636)/TTY: 1-888-232-6348

E-mail: [cdcinfo@cdc.gov](mailto:cdcinfo@cdc.gov) Web: <http://www.cdc.gov>

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.